



## **Minutes Sludge Stakeholders Group Meeting August 5, 2014**

**I & II. Welcome and Group Introductions** – Carolyn Russell re-introduced herself as the group facilitator and asked each member of the group in attendance to introduce themselves and describe something they have learned during the stakeholder process so far.

**III. Re-Engagement** – Carolyn asked if there were any corrections or additions to the minutes for the July 22, 2014 meeting. No changes were proposed. The group was asked for changes to the current meeting agenda and again no changes were proposed. As in the first Stakeholder meeting, DES described its goals for the Stakeholder group to achieve “consensus” on potential changes to the rules. In the absence of consensus, DES will attempt to discern the weight of opinion within the group when deliberating rule changes.

**IV. Tour of the Concord Hall Street Wastewater Treatment Plant** – The offer by Tom Neforas of the Concord Hall Street WWTF to host a tour of their facility on August 26<sup>th</sup> was reiterated and the group was informed that DES would be polling the group at a later date to see if there was interest in a tour.

**V. Update on sludge rules “economics”** – Progress towards finding a method to weigh costs and benefits of sludge regulations was considered. To date, DES has not invested significant time to research the issue. Vermont regulators will be contacted based on reference to a cost/benefit analysis performed in conjunction with recent rulemaking. Other potential sources of information will also be pursued. The group was asked to help define more clearly what information they were seeking and whether anyone could recommend a specific source or methodology to obtain the information. The group was advised that a true cost-benefit analysis was beyond scope of the stakeholder and rulemaking process. The group seemed to indicate that DES should make some effort to consider the economic, environmental, and social costs and benefits as it revises the rule. The possibility of organizing a subcommittee to consider this issue was raised.

**VI. Nutrient Management Subcommittee** – The group was informed that a self-selected Nutrient Management had been formed and that a meeting was scheduled for Tuesday, August 12, 2014 from 9:00 am to noon here at DES. Additional meeting time was scheduled from 9:00 am to noon on the next day. DES is looking to the subcommittee for guidance on the use of UNH Cooperative Extensions Biosolids BMP for biosolids application rate calculations and the need to consider phosphorus-based management for some sites. The group was asked for input on an agenda items for the Subcommittee to consider. It was suggested that subcommittee consider nutrient management for different types of sludge including water treatment residuals. Comparability with the management with other nutrient sources such as manure should be considered. Also, the relative costs and benefits of additional regulations such as require P-based management needed to be included the Subcommittee deliberations. For example, to what extent

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do biosolids applications contribute to phosphorus impacts on surface waters and are the benefits gained from protection of water resources proportional to the costs of increased regulation. Any changes to nutrient management requirements should be flexible enough to consider different nutrient sources and end-uses.

**VII. Sludge Classification System** - Please find attached a narrative description (*Certification, Classification, and Management of Sludge-Based Residuals*) and tabular summary of a sludge category system proposed by DES for consideration by the Stakeholder's group. DES staff described the category system and how sludge receiving sludge quality certification (SQC) would fit into each of the four categories as well as the management and testing required for each category. In response to questions, DES clarified that the category system would not influence the requirements for sludge facilities permitted under Env-Wq 808. However, certain sludge categories would be subject to the transportation requirements of Env-Wq 805.

- a. **Sludge categories and descriptions** – Limited concern was expressed regarding the general concept of a sludge category system or the basic description of each of the four categories. However, several issues were raised pertaining to the quality criteria used to distinguish between the four categories. Some of the more prominent concerns expressed include:
  - i. Incorporation or injection should be acceptable options for vector attraction reduction (VAR) as opposed to only VAR options 1-8 as proposed.
  - ii. DES low metals standards are not risk-based. DES should use the federal risk-based standards.
  - iii. Contaminant standards should be comparable to other residuals such as materials receiving waste-derived product certification under the solid waste rules.
  - iv. The use of screening standards for organic contaminants (VOC, SVOC, pesticides, & PCB) was questioned. Concern was raised that the risk scenario used to develop the screening standards is not applicable to sludge. Further, the few organics typically found tend to be ubiquitous and sufficiently low in concentration that EPA chose not to regulate them. It was also suggested that limited additional public health protection was derived from NH's stringent contaminant standards and excessive testing requirements.
  - v. Categorization should consider potential benefits derived from sludge use. If a material has nutrients, organic matter, or can provide some other benefit for plant growth, those benefits should be recognized in the category system and regulations should be sufficiently flexible to allow appropriate management while taking advantage of potential benefits.
  - vi. The use of stability criteria was also questioned. Are other residuals and nutrient sources subject to stability evaluation? Stability as a measure of the potential for malodor may be useful to maintain public acceptance. However, stability evaluation shouldn't be a barrier to the beneficial use of sludge, especially when management options are available to ameliorate the risks from less stable materials
- b. **Applicable Management Requirements** – Within the proposed category system, certain management requirements may be applicable to a category based on its quality

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and characteristics. Discussion on management applicability to the various sludge categories centered on the following:

- i. The utility of public hearings for sludge land application permits was questioned. The requirements for abutter notification and public hearings are costly and may needlessly increase public concern and also may be a deterrent to beneficial use by land owners. DES should consider dropping the requirement for a public hearing or hold a hearing upon request by the public or municipality.
  - ii. The management criteria imposed by DES for reclamation including sludge application rates and groundwater monitoring are too stringent. Mention was made of the fact that Massachusetts and Vermont don't require groundwater monitoring for reclamation and application rates are more flexible. To effectively establish vegetation on disturbed sites a 9-inch layer of sludge-based topsoil with a minimum of 2000 lbs. nitrogen/Acres is needed. The current reclamation requirements which are not actually codified in the rules are far more restrictive without groundwater monitoring in-place. Massachusetts and Vermont focus more on carbon to nitrogen ratio than total nitrogen load to establish application rates. DES should also look into how Maine handles application rates for reclamation. DES indicated that the conservative management requirements for reclamation are based on instances of groundwater contamination (ketones, metals, nitrogen) at reclamation sites or locations where large amounts of sludge are stockpiled.
- c. **Testing Requirements** – Testing is required to determine if sludge is acceptable for land application in NH. Testing would also be used to establish the quality and characteristics of sludge in order to assign it to one of the proposed sludge categories. The following concerns were raised about testing:
- i. The testing requirements to receive sludge quality certification are excessive in terms of scope and frequency. A reduction in the number of analytes is warranted especially for contaminants that are rarely found. The testing rules should be modified to allow for a reduction in testing or trigger additional testing as appropriate.
  - ii. The current requirement for enteric virus testing for class B biosolids used in reclamation is costly and there were questions about the value of this testing.
  - iii. Establishment of a subcommittee to study and discuss testing requirements was considered.

## VIII. Next Steps?

- a. Next meeting – August 26, 2014
- b. Discussion of product/sludge quality and testing (both SQC and stability) to establish quality
- c. Additional subcommittees